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AUTHOR Zareh, Frances; Mayer, Stephen
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ABSTRACT

Research on white college males has shown that people have a more complex schema regarding in-groups than out-groups. In an attempt to replicate the studies (Linville and Jones) on cognitive complexity and liking with a noncollege, racially and sexually mixed population, 60 randomly selected adult males and females read three vignettes describing people facing a problem. The vignettes described a white male athlete, a black male athlete, and a woman athlete. Subjects subsequently responded to items relating to possible solutions to the problems presented, and to descriptions of and attraction to the athletes. An analysis of the results showed partial support for the in-group complexity hypothesis in that each group of subjects, except white females, attributed more adjectives to their in-group member than to the out-group member. White subjects attributed more adjectives to white athletes, and black subjects attributed more adjectives to black athletes. Only black male subjects showed more liking for an in-group member than for an out-group member. (BL)

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Frances Zareh
California State University, Fullerton
313 S. Akeley Dr.
Glendora, Ca. 91740
Phone: 213-335-7630

Stephan Mayer
Oberlin College
Oberlin, Ohio 44704

Cognitive Complexity and Liking for In-Group and Out-Group Members

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Abstract

Non-college black and white subjects, both males and females, rated two hypothetical athletes, one black and one white, on two dependent variables: number of adjectives attributed to and liking for the athletes. The cognitive complexity hypothesis that in-group members would attribute more adjectives to an ingroup member than to an out-group member was, in part, supported. White subjects attributed significantly more adjectives to the white athlete than to the black athlete. Black subjects attributed significantly more adjectives to the black athlete than to the white athlete. However, when analyzing this data using sex as a variable, it was discovered that white female subjects did not attribute significantly more adjectives to the white athlete than to the black athlete. The hypothesis that in-group members would like an in-group member more than an out-group member was supported by the black male subjects. However, there were no significant effects for the other three groups. Implications for research on cognitive complexity and in-group - out-group bias are discussed.

The results of several studies by Linville (1982) and Linville and Jones (1980) have suggested that people have a more complex schema regarding in-groups than out-groups. In one of these studies, Linville and Jones (1980) tested white male undergraduates in a personality trait sorting task. Subjects sorted cards (each displaying a trait) into groups of traits that belonged together. Results showed that white subjects formed more groups of traits when instructed to think about white males than when they were instructed to think about black males. Thus, schema complexity appears to be related to in-group membership.

The purpose of the present study is to examine the generalizability of the findings reported by Linville (1982) and Linville and Jones (1980). Various authors (e.g., Hendrick and Jones, 1972) have discussed the limitations of exclusively using college populations to test hypotheses. These limitations center primarily around the issue of whether the findings can be generalized to non college populations. The present study attempts to replicate the findings of Linville and Jones using a non college population. If the present study can replicate the findings of these authors with a non college population, it would increase the external validity of their propositions. Additionally, the present study samples black as well as white subjects. Previous research in this area has only used white subjects. Replicating their findings with a black population would also increase the external validity of their propositions.

A liking scale was used in this study to replicate the findings of various studies that demonstrate that in-group members like a member of their in-group more than a member of an out-group (Brewer, 1979).

In view of the findings of Linville and Jones and the findings discussed by Brewer (1979), it was hypothesized that in-group members would attribute more adjectives to a member of their in-group than to a member of an out-group and that in-group members would like in-group members more than out-group members.

Method

Summary of Design

The study was based on a 2 X 2 X 2 factorial design with two between and one within-subjects variables. The first independent variable was race of subject, black and white. The second independent variable was sex of subject, male and female. The third independent variable was the repeated measures variable: race of athlete, black and white.

Subjects

The subjects were sixty adult males and females selected at random from Los Angeles and Orange County in Southern California. Subjects were selected at various settings (e.g., supermarkets, shopping centers, and restaurants) by researchers who were blind to the true nature of the study.

Materials

Each subject received a booklet containing the same three brief vignettes describing three different athletes facing a problem. Incidental information about the sex and/or race was worked into the description of the athlete or the problem. The three athletes were a white male, a black male, and a female, whose race was not specified. The description of the female was included as a filler to prevent the subjects from inferring the true nature of the study. The order of the vignettes was randomly varied within the booklets to counterbalance for order effects. Immediately following each vignette was a list of two possible solutions to the athlete's problem and a third listed as "other" with a space provided for subjects to specify their solution. This gave credence to the cover story that this was a study about how people solve problems.

Procedure

Subjects who agreed to participate were given booklets by the experimenter who explained that this was a study in problem solving behavior. The subjects were asked to read the booklets and mark their answers in response to their opinions and impressions. The experimenter assured them there were no right or wrong answers.

Dependent Variables

As the subjects finished reading each vignette, they were instructed to indicate how much they thought they would like the athlete by circling

a number on a five point semantic differential scale (1 = not at all, 5 = very much). In addition, subjects were instructed to circle all the words they thought described the athlete from a list of fifteen adjectives provided at the bottom of the page. Each vignette displayed the same list of adjectives.

Debriefing

All of the subjects were thanked and given a partial explanation of the study. All interested subjects were promised a full report after the data were analyzed.

Results

Measure of Cognitive Complexity

The results of the cognitive complexity measure are presented in figures 1 and 2. A 2 X 2 X 2 (Race of Subject X Sex of Subject X Race of Athlete) analysis of variance conducted on the subjects scores for the number of adjectives attributed to each athlete revealed no significart main effects. However, there was a significant interaction of race of subject by race of athlete, F (1,56) = 9.30, $p < .01$. Figure 1 displays this finding. An analysis of internal effects revealed that white subjects attributed significantly more adjectives to the white athlete (M = 4.83) than to the black athlete (M = 4.36, t = 2.28, $p < .05$) and that black subjects attributed significantly more adjectives to the black athlete (M = 4.30) than to the white athlete (M = 3.50, t = 3.86, $p < .05$).

The three way interaction approached significance, F (1,56) = 3.12, $p < .08$. Internal analyses of this data using the Dunn's test revealed significant results. White males attributed more adjectives to the white athlete (M = 5.27) than to the black athlete (M = 4.20, t = 2.57, $p < .05$). Black male subjects attributed more adjectives to the black athlete (M = 4.40) than to the white athlete (M = 3.47, t = 3.18, $p < .05$), as did black females (M = 4.20 for the black athlete versus M = 3.53 for the white athlete, t = 2.28, $p < .05$). White females did not attribute more adjectives to the white athlete (M = 4.40) than to the black athlete (M = 4.53).

Measure of Liking

Figure 3 displays the liking results. A 2 X 2 X 2 (Race of Subject X Sex of Subject X Race of Athlete) analysis of variance conducted for the subjects' responses for degree of liking of the athletes showed a significant main effect for race of athlete, F (1,56) = 5.79, $p < .02$. Overall, the black athlete was liked more (M = 3.33) than the white athlete (M = 3.08). The analysis also revealed a significant interaction for race of subject by race of athlete, F (1,56) = 9.27, $p < .01$. The black subjects liked the black athlete (M = 3.56) more than the white athlete (M = 3.00). White subjects did not like the white athlete (M = 3.16) more than the black

athlete (M = 3.10).

However, these findings are qualified by the presence of a significant three-way interaction, race of subject X sex of subject X race of athlete, F (1,56) = 7.44, $p < .01$. Black males liked the black athlete (M = 3.73) more than they liked the white athlete (M = 2.99). The other three groups of subjects did not significantly differ in their liking for the black versus the white athlete, although the means for two of the three groups were in the expected direction. Once again, the white females were the group that differed. White females liked the black athlete (M = 3.4) more than the white athlete (M = 3.13). Black females liked the black athlete (M = 3.4) more than the white athlete (M = 3.07). White males liked the white athlete (M = 3.2) more than the black athlete (M = 2.8).

Discussion

Partial support for the hypothesis that in-groups would attribute more adjectives to an in-group member than to an out-group member was provided by the findings of this study. Each group of subjects, except the white females, attributed more adjectives to their in-group member than to the out-group member. These results support the in-group complexity hypothesis of Linville and Jones and add external validity to their findings.

The question of why the white females varied from the other groups is puzzling. Perhaps they are not as prone as the other groups to classify people into in-groups and out-groups. Perhaps as a result of the influence of the woman's movement, white females do not consider males to be part of their in-group. Perhaps they don't consider athletes to be part of their in-group. On the other hand, consideration must be given to the possibility that a non-college population of white females may vary systematicly from a college population of white females. Future research should investigate this possibility.

The results of the study provided less support for the hypothesis that in-group members would like in-group members more than out-group members. Examination of the significant three way interaction reveals that black males liked the black athlete more than the white athlete. This finding is hardly surprising when one considers that blacks have traditionally viewed white males as their oppressors in our society. The surprising finding is that there were no significant differences in the mean liking scores for the other three groups. These results contradict the greater liking for in-group member findings of various studies cited by Brewer.

There may be several explanations for these results. It is possible that white male subjects, not wishing to appear biased, gave the socially desirable answer. On the other hand, white males may consider all male athletes, regardless of race, as part of their in-group. The females responses may have been related to the athlete's being a member of the opposite sex, a factor that would lead the athlete to be perceived as an out-group member.

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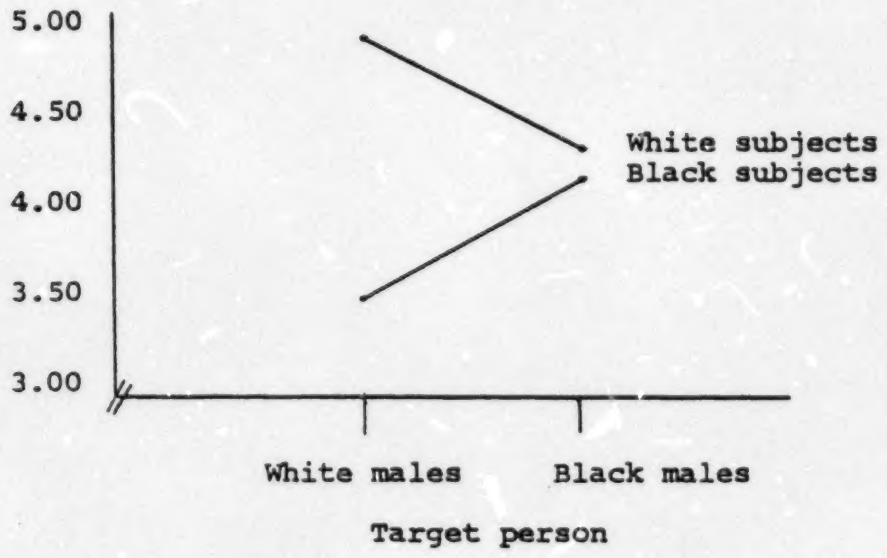
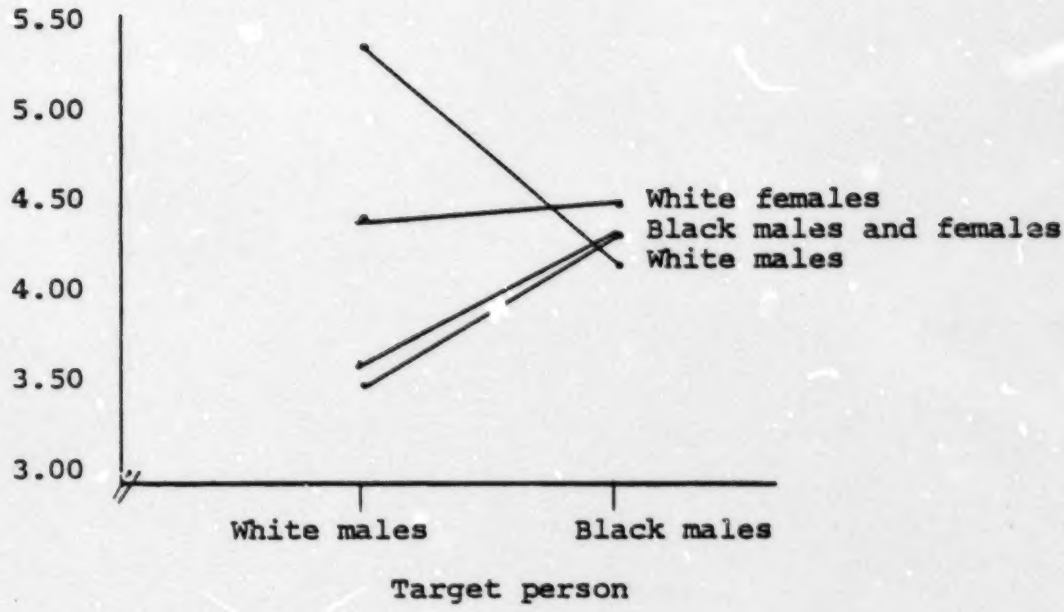


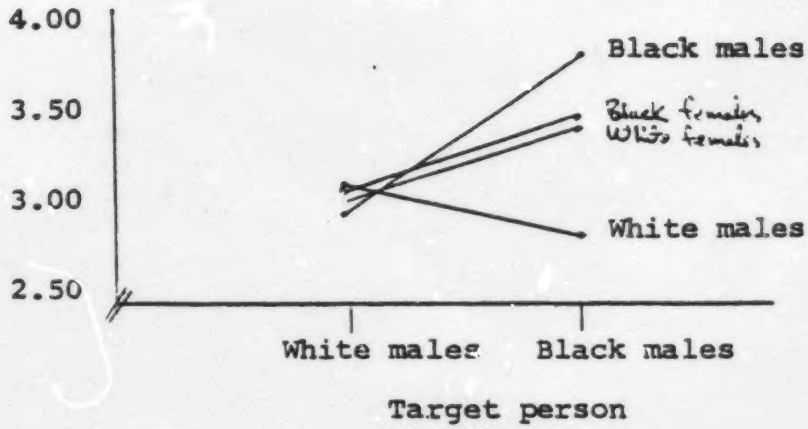
Mean Number of Adjectives Attributed by White versus Black Subjects

Figure 1



Mean Number of Adjectives Attributed by White Females, Black Males and Females, and White Males

Figure 2



Mean Liking Scores for Black Males versus White Males

Figure 3